



**6712-01**

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR Part 74**

**[GN Docket No. 14-166, ET Docket No. 14-165, GN Docket No. 12-268: FCC 17-95]**

**Promoting Spectrum Access for Wireless Microphone Operations**

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** In this document, the Commission proposes to permit professional theater, music, performing arts, or similar organizations that operate wireless microphones on an unlicensed basis and that meet certain criteria to obtain a license to operate in the TV bands (and the 600 MHz service band during the post-auction transition period), thereby allowing them to register in the white spaces databases for interference protection from unlicensed white space devices at venues where their events/productions are performed. In addition, the Commission proposes to permit these same users, based on demonstrated need, also to obtain a license to operate on other bands available for use by wireless microphone licensees provided that they meet the applicable requirements for operating in those bands. This proposed action promotes the Commission's goal of accommodating wireless microphone users' needs through access to spectrum resources following the incentive auction and reconfiguration of the TV bands.

**DATES:** Comments are due **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Reply comments are due **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**FOR FURTHER INFORMATION CONTACT:** Paul Murray, Office of Engineering and Technology, 202-418-0688, [Paul.Murray@fcc.gov](mailto:Paul.Murray@fcc.gov).

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission’s Further Notice of Proposed Rulemaking, GN Docket No. 14-166, ET Docket No. 14-165, GN Docket No 12-268, FCC 17-95, adopted July 13, 2017, and released July 14, 2017. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Center (Room CY-A257), 445 12th Street SW., Washington, DC 20554. The full text may also be downloaded at:

[http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2017/db0714/FCC-17-95A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0714/FCC-17-95A1.pdf).

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## **Synopsis**

1. Background. As an alternative to its request for reinstatement of a reservation system for certain unlicensed wireless microphone users, wireless microphone manufacturer Shure requested in its petition for reconsideration of the Commission’s 2015 Wireless Microphones R&O, 80 FR 71702, November 17, 2015, that the Commission provide a more limited reservation system that would make registration for interference protection for wireless microphone users in the TV bands available in special circumstances requiring a high degree of reliability for a user that does not typically use 50 or more microphones. Shure pointed out that recent Commission decisions, including the elimination of two “reserved” TV channels for wireless microphones in the TV bands following the incentive auction, has resulted in unlicensed wireless microphone users having access to fewer vacant TV channels that would be free from interference from white space devices.

2. Under the Commission's part 74 Low Power Auxiliary Stations (LPAS) rules, licensed operations of wireless microphones are permitted on the TV band frequencies on a secondary, non-exclusive basis, with license eligibility restricted to a limited set of specified entities. Prior to 2014, eligibility was restricted to licensees of radio and broadcast television stations, broadcast television network entities, certain cable television system operators, and motion picture and television program producers. In the TV Bands Wireless Microphones Second R&O, 79 FR 40680, July 14, 2014, the Commission provided for a limited expansion of eligibility under part 74, Subpart H, to include professional sound companies and venues that routinely use 50 or more wireless microphones for major events/productions where use of such devices is an integral part of these events/productions. When using frequencies in the TV bands, these licensed wireless microphone users may also register with the white spaces databases to receive interference protection from unlicensed white space devices in the TV bands at specified locations when these events/productions are performed.

3. In providing for this limited expansion of license eligibility, the Commission explained that these particular entities share the need of the other eligible entities for regular and reliable high quality audio services that are free from interference, and often require a large number of wireless microphones to meet their needs. In particular, the Commission concluded that professional sound companies and venues that routinely use 50 or more wireless microphones at events/productions generally have the same needs for interference protection as existing part 74 wireless microphone licensees, particularly given the spectrum requirements associated with use of a large number of wireless microphones. The Commission found that these types of professional users have experience in coordinating wireless microphone uses among themselves at venues or events, even in congested markets, and have similar needs to

existing part 74 wireless microphone licensees, and concluded that routine use of 50 microphones was a reasonable threshold for identifying entities that are more likely to require interference protection in order to ensure high quality audio services.

4. In the 2015 Wireless Microphones R&O, the Commission adopted various revisions in with regard to licensed wireless microphone operations under the part 74 LPAS rules. With respect to the TV bands, it revised the rules to provide more opportunities for licensed wireless microphone users to access spectrum by allowing greater use of VHF channels, and by providing for closer co-channel operation without the need for coordination where the licensed wireless microphone user determines that the TV signals fell below a specified threshold (such that wireless microphone operations would pose little risk of causing harmful interference to TV service). The Commission also expanded eligibility for licensed use of the 600 MHz duplex gap to all entities eligible to hold part 74 wireless microphone licenses for using TV band spectrum. In addition, outside of the TV bands the Commission opened up additional portions of the 900 MHz band (portions of the 941-944 MHz and 952–960 MHz bands on each side of the 944-952 MHz band), as well as portions of the 1435-1525 MHz band (with special equipment and coordination requirements) and the 6875-7125 MHz band, to permit use by licensed wireless microphone operations on a secondary basis under specified conditions.

5. On April 13, 2017, the broadcast television incentive auction closed, thereby establishing: (1) the revised TV bands that will be repacked and will continue to be available for use by wireless microphones on a secondary licensed or an unlicensed basis, and (2) the 600 MHz Band Plan, which includes the limited spectrum that will be available for wireless microphone operations in the 600 MHz guard band and duplex gap after the end of the post-auction transition period. As a result of the repurposing of 84 megahertz of TV bands spectrum

in the incentive auction, the spectrum in the revised and repacked TV bands (channels 2-36) available for licensed and unlicensed wireless microphone use will be substantially reduced in the coming years, although the specific amount of spectrum that remains available will vary depending on the particular locations of the users' wireless microphones operations.

6. Discussion. The Commission agrees with Shure and commenters supporting its petition that certain unlicensed wireless microphone users that do not meet the 50 microphone threshold nonetheless have identical or similar needs for interference protection at their events/productions as do entities that currently qualify for part 74 wireless microphone licenses. In many instances, the 50 microphone threshold is unnecessarily restrictive as it excludes many entities that have the need for professional high-quality audio for their events/productions. Therefore, we propose and seek comment on how best to accommodate these wireless microphone users to the extent that, based on demonstration of particular need, they should qualify for a license at their events/productions.

7. The Commission recognizes that the 50 microphone threshold is a proxy for the need for professional, interference-free high-quality audio events/productions. Therefore the Commission proposes to allow certain theater, music, and performing arts organizations that do not meet this threshold but are otherwise able to demonstrate they have these "professional" needs and capabilities to obtain a part 74 license to operate in the TV bands and the 600 MHz duplex gap. This would address the specific concerns raised in the petition by allowing these users to register for interference protection from white space devices when operating in the TV bands. In addition, the Commission proposes to allow such users access to other spectrum bands available to part 74 wireless microphone licensees, including portions of the 900 MHz, 1435-1525 MHz, and 7 GHz band spectrum where the need and requisite capabilities are

demonstrated. Furthermore, the Commission seeks comment on whether there also may be certain other, similar types of organizations that use wireless microphones for productions where professional-level high-quality audio service is required and these needs cannot otherwise be met, such that the organization also may merit such protection for the same reasons.

8. To fully account for these certain wireless microphone users with professional needs, the Commission proposes to revise the definition of both “large venue owner or operator” and “professional sound company” under our rules. The Commission proposes to define these terms to include either (a) wireless microphone users that routinely use 50 or more wireless microphones where the use is an integral part of major events or productions (as provided under existing rules) or (b) wireless microphone users that otherwise can demonstrate a particular need for, and the capability to provide, professional, high-quality audio that is integral to their events or productions.

9. To demonstrate a need for high-quality audio during events/productions under prong (b), an applicant for a part 74 license would be required to show that its needs for high-quality audio services for its audiences are identical or substantially similar to those of current part 74 licensees. The Commission seeks comment on what this demonstration would look like, and how the Commission would determine whether there is actual need for a license and that the spectrum would be used in a spectrally efficient manner.

10. Furthermore, to demonstrate the requisite capability to provide professional high quality audio under prong (b), an applicant for such a part 74 license would need to demonstrate that it has the professional-level technical and operational capabilities to carry out its responsibilities associated with holding a license (e.g., coordination responsibilities, technical capabilities, and registration capabilities). This criterion is meant to encompass users that have

capabilities that are identical or similar to the professional sound companies/large venues that currently qualify for part 74 licenses, but that do not meet the 50 microphone threshold.

11. As in the TV Bands Wireless Microphones Second R&O, the Commission is proposing only a limited expansion of eligibility that strikes an appropriate balance in expanding licensee eligibility where there is a clear need for professional high-quality audio for particular events/productions, while ensuring that spectrum is shared effectively with existing wireless microphone licensees and remains available for other uses, such as by white space devices. Commenters should discuss the effect that the proposed expansion of eligibility for wireless microphone licenses would have on other users of the spectrum.

12. In addition to proposing to permit professional theater, music, and performing arts organizations that do not meet the 50 microphone threshold but meet the two-part test above to obtain a part 74 license in the TV bands and the 600 MHz duplex gap, the Commission also proposes to permit these entities to qualify for a license in portions of the 900 MHz band, as well as in the 1435-1525 MHz and 6975-7125 MHz band, that also are available for part 74 wireless microphone licensees, upon demonstrated need and ability to meet the necessary coordination and other requirements pertaining to each particular band. The Commission believes that any risk of wireless microphone operations causing harmful interference to these primary licensees is low considering that wireless microphones operate at relatively low power over short ranges.

13. The Commission seeks any additional comment on this proposed case-by-case approach, and on possible alternatives to that approach. Commenting parties proposing alternative approaches should explain the rationale for the metric or standard that they propose, address how it would be a reasonable and appropriate way of identifying the class of wireless

microphone users that merit a license, and provide sufficient data and other information supporting such an approach.

## **PROCEDURAL MATTERS**

14. Paperwork Reduction Analysis. The Further Notice of Proposed Rulemaking (FNPRM) contains proposed new information collection requirements. We invite the general public and Office of Management and Budget to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, the Commission seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

15. Initial Regulatory Flexibility Analysis. As required by the Regulatory Flexibility Act, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities of the proposals addressed in this FNPRM. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the FNPRM, and they should have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this FNPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the RFA.

16. This proceeding is initiated to explore whether certain professional theater, music, performing arts, or similar organizations that operate wireless microphones on an unlicensed basis and meet certain criteria should be permitted to: (1) obtain part 74 licenses in the TV bands to enable them to register in the white spaces databases for interference protection from unlicensed white space devices that operate in those bands, and to access the portion of spectrum available to licensed wireless microphone users in the 600 MHz duplex gap (specifically, the 653-657 MHz portion); and (2) obtain part 74 licenses to operate in other bands available for use by part 74 licensed wireless microphone licensees, including



portions of the 900 MHz, 1435-1525 MHz, and 6975-7125 MHz bands, provided that they meet the applicable requirements for operating in those bands.

17. The proposal set forth in the FNPRM would apply to certain theater, music production, and performing arts, and similar organizations that currently use wireless microphones on an unlicensed – rather than licensed – basis to meet their audio service needs because they fail to meet the 50 microphone license eligibility requirement to be a “large venue or operator” or “professional sound company” under the Commission’s Rules for part 74 Low Power Auxiliary Stations. Under the proposal, an unlicensed wireless microphone applicant for a part 74 license would be required to establish that needs access to more spectrum in these bands is needed for its major events or productions, based on a showing of its particular needs at that specified location, that its need for high-fidelity audio services for its audiences are identical or substantially similar to those of current part 74 licensees, and that it has the professional-level technical and operational capabilities to carry out its responsibilities as a licensee.

18. Ex Parte Presentations. This proceeding will be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s ex parte rules. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent

with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

19. Comment Filing Procedures. Pursuant to §§ 1.415 and 1.419, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- Electronic Filers. Comments may be filed electronically using the Internet by accessing the ECFS, <http://apps.fcc.gov/ecfs>.
- Paper Filers. Parties who file by paper must include an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> Street, SW., Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

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## **ORDERING CLAUSES**

20. IT IS ORDERED that, pursuant to §§ 1, 4(i), 4(j), 7(a), 301, 302(a), 303(f), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 157(a), 301, 302a, 303(f), and 332, the Further Notice of Proposed Rulemaking is ADOPTED.

21. IT IS ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Further Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects

### **47 CFR Part 74**

Reporting and recordkeeping requirements

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch,  
Secretary.

## Proposed Rules

The Federal Communications Commission proposes to amend 47 CFR part 74 as follows:

### **PART 74, Subpart H – LOW POWER AUXILIARY STATIONS**

1. The authority citation for part 74 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302a, 303, 307, 309, 310, 336, and 554.

2. Amend § 74.801 the definitions for “Professional sound company” and “Venue owner or operator” to read as follows:

#### **§ 74.801 Definitions.**

\* \* \* \* \*

Professional sound company. Professional sound company refers to a person or organization that provides audio services that (a) routinely use 50 or more low power auxiliary station devices, where the use of such devices is an integral part of major events or productions, or (b) can otherwise demonstrate a particular need for, and the capability to provide, professional high-quality audio through use of low power auxiliary station devices, where the use is an integral part of events or productions. Routinely using 50 or more low power auxiliary station devices means that the professional sound company uses 50 or more such devices for most events or productions.

\* \* \* \* \*

Venue owner or operator. A venue owner or operator refers to a person or organization that owns or operates a venue that (a) routinely uses 50 or more low power auxiliary station devices, where the use is an integral part of major events or productions, or (b) can otherwise demonstrate

a particular need for, and the capability to provide, professional high-quality audio through use of low power auxiliary station devices, where the use is an integral part of events or productions. Routinely using 50 or more low power auxiliary station devices means that the venue owner or operator uses 50 or more such devices for events or productions.

\* \* \* \* \*

3. Amend § 74.832 by revising paragraph (a)(7) to read as follows:

**§ 74.832 Licensing requirements and procedures.**

\* \* \* \* \*

(a)\* \* \*

(7) Venue owners or operators as defined in § 74.801.

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[FR Doc. 2017-17441 Filed: 8/31/2017 8:45 am; Publication Date: 9/1/2017]